

REMARKS

Claims 1-13 are pending in this application and stand ready for further action on the merits.

Claim 1 has been amended to recite that the wrap film comprises a layer of resin composition (C) as at least one “exposed” surface layer. This amendment clarifies that a layer of resin composition (C) [hereinafter “layer (C)”] is used as at least one of the outer surface layers of the wrap film. There is sufficient descriptive support in the present specification to show that the present inventors were in possession of the presently claimed wrap film at the instant filing date and that this amendment does not add new matter to the disclosure. For example, at page 12, lines 11-21 of the present specification, the specification teaches that the wrap film can be a monolayer consisting only of a layer (C) or a multilayer film comprising layer (C) on one or both surfaces of the wrap film. Also, at page 7, line 26 to page 8, line 7 of the present specification, the specification teaches that additive (B) which is used in layer (C) is preferably an epoxy plant oil or acetylated citric acid fatty acid ester in view of possible direct contact with the food to be wrapped with the film. Accordingly, it is clear that the present inventors envisioned layer (C) to be at least one “exposed” surface layer of the wrap film, as presently claimed.

INTERVIEW SUMMARY

Applicant’s acknowledge with appreciation the courtesies extended by the Examiner during the personal interview held with the Examiner on June 10, 2005. The Interview Summary prepared by the Examiner summarizes the main points discussed at the interview. However, applicants would like to clarify one point. A more accurate representation of the discussion at the interview for item (b) would be “(b) Kuroki calls for one or more added layers to change surface roughness properties.”

Although the Interview Summary does not reflect that an agreement was reached at the interview, it was the impression that the Examiner was inclined to allow the application. One point that the Examiner asked the applicant to address in the response to be filed, which is not mentioned in the Interview Summary, is to clarify how the present claims which recite a product “comprising” at least one surface having specified properties is different from the product of Kuroki which can modify certain properties by adding an additional layer to the product. The undersigned indicated that he would consult with applicant on this point.

RESPONSE TO OFFICE ACTION

The following sections correspond with the sections of the outstanding Office Action.

Paragraphs 1-2 — Objections

The Examiner objects to claims 2 and 6-7 for being drawn to a different product than claim 1, the claim from which it depends. For example, claim 2 is drawn to “a wrap film roll” which incorporates the “wrap film” of claim 1.

Applicants note that the Examiner has requested that applicants “voluntarily” revise claims 2, 6 and 7 so that each product is separately claimed. As such, it appears that the Examiner is aware that there is no statutory basis for the Examiner to force applicants to amend the claims as requested, and that the Examiner has requested the amendment in view of a style of claims preferred by the Examiner.

The Examiner should be aware of the instructions at MPEP 608.01(n)(III), wherein examples of dependent claims which are similar in format to applicants’ claims 2, 6 and 7 are taught to meet the “infringement test”. The “infringement test” asks whether it is conceivable that the dependent

claim could be infringed by anything which would not also infringe the basic claim. Since it is not conceivable that applicants' claims 2, 6 and 7 could be infringed by anything that would not also infringe claim 1, then the instant claims 2, 6 and 7 meet the "infringement test".

Applicants respectfully submit to the Examiner that the style of instant claims 2, 6 and 7 is preferred by applicants. As such, applicants have not "voluntarily" amended claims 2, 6 and 7 as requested by the Examiner, and withdrawal of the claim objections is respectfully requested.

Paragraphs 10 and 14 — Rejections based on Shibata et al. in view of Kuroki et al, optionally in view of JP '747

In paragraph 14 of the Office Action, Claims 1-13 are rejected under 35 U.S.C. 103(a) being unpatentable over Shibata et al. in view of Kuroki et al., (EP 1029890A2). In paragraph 10 of the Office Action, Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata et al. and Kuroki et al. as applied to claims 1-13 above, and further in view of JP 05-162747 (based on its English abstract). These two rejections will be dealt with together because they both deal with the combination of Shibata et al in view of Kuroki et al.

Applicants respectfully traverse both rejections for the following reasons.

As discussed in applicants' previous response and at the interview, the present invention is drawn to a wrap film comprising a layer of resin composition (C) as at least one surface layer, wherein resin composition (C) comprises an aliphatic polyester resin (A) and a liquid additive (B), wherein the surface layer has a surface roughness of 0.5 to 4.0 nm, and the wrap film has favorable strength, heat resistance and cling properties. Not only is the inventive wrap film easy to use, but it comprises an aliphatic polyester which is considered biodegradable. It is this combination of properties, which makes the inventive wrap film more desirable than the wrap films in the prior art.

As discussed at the interview, Shibata et al. disclose a wrap film made from a *polyolefin* and not an aliphatic polyester as claimed by applicants. Although Shibata et al. state that a low surface roughness of a polyolefin film contributes to the enhancement of the clinging property, the level of the mentioned low roughness of Ra is of 40 to 60nm. This surface roughness of the film disclosed in Shibata et al. is about ten times higher than the film claimed in the present application. More specifically, Shibata et al. disclose a wrap film surface roughness equal to or less than 0.08 μm (80 nm) in terms of Ra and equal to or less than 0.66 μm (650 nm) in terms of Rz, beyond which the roughness decreases the clinging energy (see par. 0126). The examples disclose films that have Ra of 0.04 - 0.06 μm (40 - 60 nm) and Rz of 0.4 - 0.6 nm (400 - 600 nm) (see par. 0169 and Tab. 8).

Kuroki et al. disclose a film made from an aliphatic polyester. The surface roughness of the film is not measured, however, it can be assumed that the surface roughness is a conventional surface roughness. There are no special techniques disclosed in this reference that would allow the production of a film having an extremely low surface roughness, as claimed in the present application. **Importantly**, Kuroki et al. disclose that if special surface properties are desired, additional layers can be **placed on** the polyester film (see paragraphs [0045] –[0047]. These additional layers used for coating on the wrap film include an acrylic resin as copolymer made from acrylic ester and other vinyl monomers to impart a clinging property to the wrap film. In the sense that the coating constitutes another layer, Kuroki et al.'s aliphatic ester film can not be exposed to have an excellent clinging property. In such a situation, the disclosed aliphatic polyester would no longer have “at least one exposed surface layer” formed from an aliphatic polyester having certain properties, as presently claimed. The aliphatic polyester layer that was previously a surface layer would no longer be a surface layer after it is coated by another material. The aliphatic polyester film of the present invention has a surface with an extremely low surface roughness therefore it needs no

extra additional layer for an excellent clinging property. It is believed that this explanation in combination with the above-amendment to claim 1, addresses the question raised by the Examiner at the interview as to whether the current claims are sufficiently distinguishable from Kuroki et al.

According to MPEP 2141, when applying 35 USC 103, one of the tenets of patent law which must be adhered to is that the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination. It is respectfully submitted that even if Shibata et al. is combined with Kuroki et al., there is no suggestion of preparing a film from an aliphatic polyester having a smoothness within the claimed range. The only cited reference that gives a smoothness value (Shibata et al.) describes a surface ten times more rough than the present invention. Kuroki et al. do not indicate that if one wants to change the surface properties of the polyester film disclosed therein, one should coat the surface of the polyester film with another layer. Even if the two references are considered in combination, there is no suggestion of preparing a film of an aliphatic polyester having an extremely smooth surface as claimed in the present application.

With respect to JP '747, this reference was cited for teaching paper cutters. In view of the fact that JP '747 does not fairly suggest modifying the polyolefin wrap film of Shibata et al. to have the instant surface roughness and to be made of a polyester, and JP '747 does not cure the deficiencies of Kuroki et al. and Shibata et al.

Accordingly, withdrawal of the rejections based on Kuroki et al., Shibata et al. and optionally JP '747 is respectfully requested.

Paragraph 13 – The Rejection over Topolkaraev et al. in view of Shibata et al.

According to MPEP 2141, when applying 35 USC 103, one of the tenets of patent law which must be adhered to is that the references must be considered as a whole and must suggest the

desirability and thus the obviousness of making the combination. It is respectfully submitted that the skilled artisan would not be motivated to look to Shibata et al. to modify the film of Topolkaraev et al., since there is no suggestion of the desirability to modify the film of Topolkaraev et al. with the features of the film of Shibata et al.

As discussed at the interview, the patent to Topolkaraev et al. is directed to making materials for use with diapers that have enhanced breathability (abstract, Col. 2, line 66 to Col. 3, line 1). Breathability is a property that is not desired in a film which can be used for wrapping food, such as the film of Shibata et al. Furthermore, the film of Topolkaraev is much rougher than the film of the Shibata et al. due to various voids and impressions that are intentionally formed into the surface during preparation as illustrated below.

Topolkaraev et al. disclose the provision of high breathability and water vapor transmission properties to a film made from a precursor film formed from biodegradable polymer and water-soluble resin co-kneaded and then treated by annealing or spraying to produce a pretreated film. The pretreated film is subjected to etching with water, stretching in contact with water, or swelling then freeze-drying, in order to remove the water soluble resin from the film leaving a porous and breathable film (see col. 8, lines 21 to 27, and lines 39 to 50).

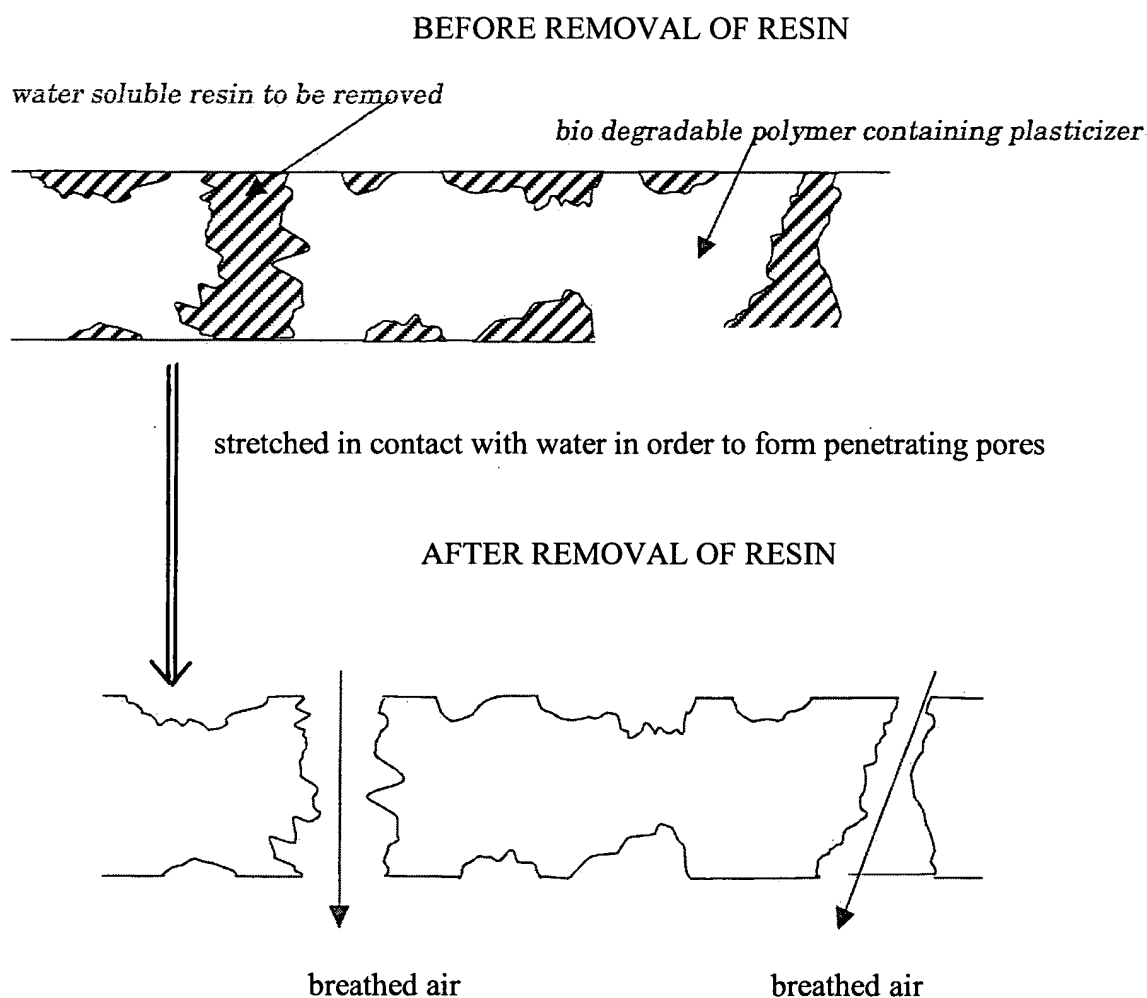
In the above process, the water soluble polymer removed from the pretreated film leaves behind in the film voids where the removed polymer previously resided. When an area filled with a portion of the water soluble resin in the pretreated film runs through the film from one surface to the other, the area will be converted to a pore penetrating from one surface to the other (see fig. 1, col. 8, line 21 to col. 9, line 60). When the area touches only one surface, the area will be converted to a concave impression. These numerous concave impressions fail to penetrate the film to form proper

pores. Because of the surface roughness created by the impressions, the surface of the film must be very rough.

The resulting numerous pores and impressions produce a film with a very rough surface.

The mechanism of the formation of the pores and impressions are illustrated below.

The following is a cross section of a pretreated film of Topolkaraev et al. before and after the removal of water soluble resin:



Because of the surface roughness created by the impressions the surface of the film must be very rough. It would be clear to the skilled artisan that the extent of the roughness of Topolkaraev is far beyond the roughness allowable for a wrap film of the present invention.

Since Kuroki et al. and Topolkaraev et al. are concerned with totally different products having totally different performance requirements, a researcher trying to prepare a plastic film suitable for wrapping food would not turn to the teachings of Topolkaraev et al. In particular, a high degree of breathability is not a desirable property of a film used for wrapping food. Even if one skilled in the art were to turn to the teachings of Topolkaraev et al., one would not be motivated to prepare an extremely smooth film since the materials in Topolkaraev et al. have a rougher surface than Kuroki et al. Furthermore, the combination of Topolkaraev et al. with Kuroki et al. is improper since the two references are from non-analogous art. *In re Clay* (CAFC 1992), 23 PQ2d 1058.

In view of the fact that the motivation prong of the obviousness analysis is nonexistent, a *prima facie* case of obviousness cannot be said to exist. As such, withdrawal of the rejection over Topolkaraev et al. and Kuroki et al. is respectfully requested.

Conclusion

In view of the above-amendments and comments, Applicants respectfully submit that the claims are in condition for allowance. A Notice to such effect is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gerald M. Murphy, Jr., Reg. No. 28,977 at the telephone number of the undersigned below, to conduct a further interview in an effort to expedite prosecution in connection with the present application.

Application No. 10/622,571

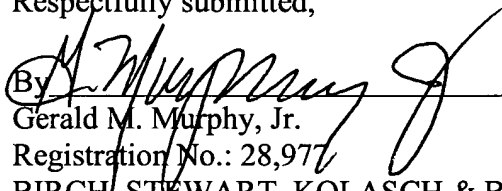
Art Unit 1772

Reply to Final Office Action dated March 1, 2005

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: June 27, 2005

Respectfully submitted,

By 
Gerald M. Murphy, Jr.
Registration No.: 28,977
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Rd
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant